

NU-WOOD BALSAM-WOOL



WOOD CONVERSION COMPANY
ST. PAUL . . . MINNESOTA



WOOD CONVERSION COMPANY
ST. PAUL MINNESOTA
 DISTRICT OFFICES:
 NEW YORK, N. Y. 155 E. 44TH ST.

Makers of

BALSAM WOOL and NU-WOOD

CHICAGO, ILL. 360 NO. MICHIGAN AVE.

BALSAM-WOOL *Insulation*

APPLICATION INFORMATION

DESCRIPTION

Balsam-Wool Blanket is a flexible form of heat and sound insulation. It is made from new wood fibers chemically treated and permanently cemented together into a fleecy wool form. It is sealed on sides and edges with asphalt coated crepe kraft, which is flexible, wind-proof, water and moisture-proof and folded over at the edges to form nailing flanges.

Wood pulp, made from balsam, spruce, Norway or white pine, is chemically treated to make it fire-resistant, moisture-resistant, and rodent and vermin proof. Water-proofing is further affected by the special blend of asphalt which seals the kraft to the wood fiber mat.

THERMAL CONDUCTIVITY

The conductivity of one-inch thick Balsam-Wool Blanket is .246 B.t.u. per hour per square foot, per degree difference in surface temperature at an average temperature of 70° F. (J. C. Peebles, Armour Institute of Technology, Chicago).

Generally speaking the less a material weighs per cubic foot the greater its insulating value. The remarkably low thermal conductivity of Balsam-Wool is due to the arrangement of the fibers in the wool mat. 92% of Balsam-Wool is "still or dead" air.

AN EFFECTIVE SOUND DEADENER

Balsam-Wool has remarkable efficiency as a sound deadening material because it has the ability to both absorb and reflect sound waves.

PUNCTURE-PROOF

The creped surface of Balsam-Wool Blanket is capable of 25% stretch, rendering it virtually puncture-proof and unusually tough and flexible.

MOISTURE-PROOF

Both in its fiber mat and in its surfacing Balsam-Wool is manufactured to be thoroughly moisture-proof.

WIND-PROOF

The tough, creped, asphalt-lined surface of Balsam-Wool is especially designed and manufactured to make the finished product absolutely wind-proof.

FIRE-RESISTANT

Balsam-Wool will not support combustion. The mat is chemically treated to resist fire. It will char while exposed to flame, but will not smolder or burn after the flame is removed.

SANITARY—VERMIN-PROOF

Balsam-Wool does not attract or harbor rats, mice or vermin. It is clean, odorless, and sanitary.

PERMANENT

By knowing exactly what insulation material must do after it has been applied, the manufacturers of Balsam-Wool have designed it to be moisture-proof, fire-resistant, wind-proof, vermin-proof, and therefore permanent. It cannot sag, settle or disintegrate. It will retain all of its original insulating efficiency as long as the building lasts.



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UNIFORM QUALITY

During the manufacturing process, Balsam-Wool is under constant laboratory supervision to assure uniformity.

DENSITY, WIDTHS AND THICKNESSES

Density—Balsam-Wool Mat 2.2 lbs.

Thicknesses— $\frac{1}{2}$ in., 1 in., and Wall-Thick

Widths— $\frac{1}{2}$ in. and 1 in.; 16, 24, and 33 in.

Wall-Thick—16 and 24 in.

LOW COST OF INSTALLATION

The three standard widths meet all average construction requirements. The carpenter cuts only to length. Its flexibility makes it easy to fit into angles and around corners without waste. In its light, blanket form, it is easy and quickly installed.

SPECIFICATION—BALSAM-WOOL HEAT INSULATION

For insulating Walls, Floors, Ceilings and Roofs of Frame Construction including Masonry Veneer and Frame Stucco and Exterior Masonry Walls.

APPLICATION

General—Maintain continuity of insulation between joist and rafter ends. Make joints tight throughout, especially around door and window openings. Use full length strips of Balsam-Wool. Where joints are necessary, lap and cover with wood laths nailed through to boarding or headers.

Frame Walls and Roofs—Apply Balsam-Wool vertically between studs and rafters, leaving an air space behind insulation. Cover flanges or flaps on Balsam-Wool with wood laths nailed through flanges to sides of studs or rafters, making a continuous air-tight joint. Top

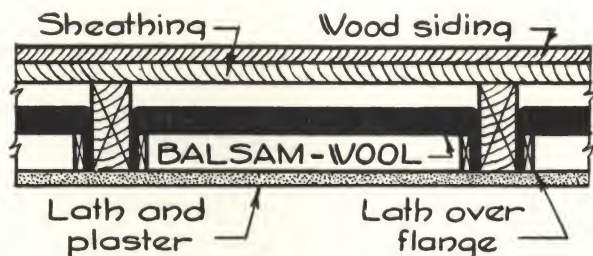


FIGURE 1

and bottom of each wall section should be fastened with laths nailed through insulation to sills, plates or headers. (See Figure 2.) Remove a portion of mat of Wall-Thick Balsam Wool to make top and bottom fastening easier.

Floors and Ceilings—Tack overlapping flanges of Balsam-Wool to face or under side of joists and cover with 1 x 2-in. furring strips. Provide headers between ends of joists over which ends of insulation shall be secured with laths nailed to headers.

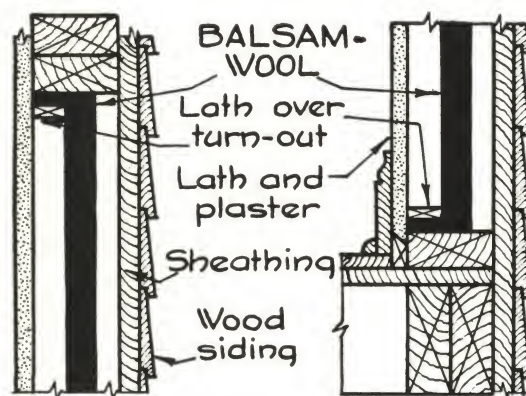


FIGURE 2

Balsam-Wool may also be applied *between* ceiling or floor joists in same manner as recommended for walls and roofs. It may be installed either from below or above. Flanges should be covered with wood lath and nailed to form a continuous air-tight joint.

Masonry Walls—Fur masonry walls vertically with 1 x 2-in. furring set 16 in. o.c., shimmed plumb and true and substantially secured. Apply Balsam-Wool between furring strips. (Figure 3.) Tack overlapping flanges

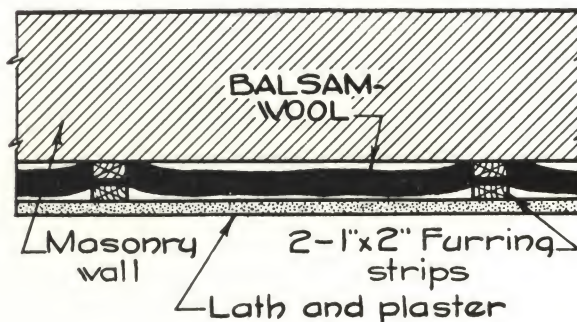


FIGURE 3

to faces of furring strips and cover with 1 x 2-in. furring strips nailed through flanges to first set of strips. Cut in cross furring between furring strips at top and bottom and secure ends of insulation with laths nailed to cross furring.



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SPECIFICATION—BALSAM-WOOL SOUND INSULATION—FOR WOOD FRAME PARTITIONS

Framing—Partitions of 2x4-in. studs should be framed double, staggered on 6-in. soles and plates. Studs of each partition should be set 16 in. o.c., the studs of one centering between the studs of the other.

APPLICATION

Weave 1 in. Balsam-Wool horizontally between the two sets of studs. Secure the insulation to the face of one set of studs with laths nailed through the insulation. Lap all horizontally and vertical joints at least 3 in. Tension on all strips shall be equal to prevent opening of the joints between supports. (Figure 4.)

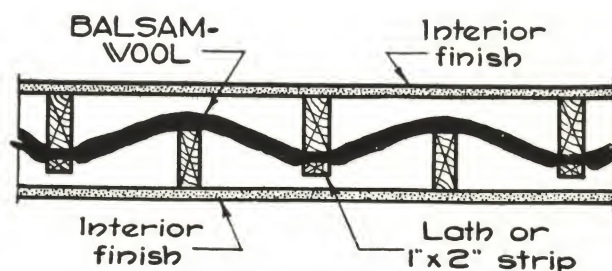


FIGURE 4

SPECIFICATION—BALSAM-WOOL FLOOR DEADENING SYSTEM

In addition to the familiar practice of applying Balsam-Wool for sound deadening treatment over sub-floor under furring strips with the finished floor fastened to the furring strips, architects have designed a floor deadening system which has proven practical and efficient for all types of construction.

Balsam-Wool Floor Deadening System accessories are packaged for convenience. Two packages comprise a unit of sufficient Nu-Wood blocks and strips of deadening felt with metal straps attached to apply 1000 sq. ft. of Balsam-Wool in accordance with the following specifications.

APPLICATION

Balsam-Wool Floor Deadening System—Apply $\frac{1}{2}$ in. or 1 in. Balsam-Wool (33 in. in width) over sub-floor at one end of room, running at right angles to direction of finish flooring. Turn

Balsam-Wool up to plaster ground on side and ends. Place 2x2-in. furring strips 16 in. o.c. over and parallel to Balsam-Wool allowing approximately 4 in. between first strip and wall. Cover furring strips with strips of deadening felt—metal straps up. Fasten with small nails at several points along furring strip to hold felt in place. Place a Nu-Wood block under furring strip exactly below each metal strap, striking the furring strip a sound blow to imbed the block into Balsam-Wool. Nail metal straps to sub-floor using $1\frac{1}{4}$ -in. 10-gauge, barbed, large-headed, galvanized roofing nails, placing nails in holes nearest ends of strap. If first nails do not hold furring strip tightly, nail through one or both remaining holes.

Lay second width of Balsam-Wool overlapping first width about 3 in., and turn up at walls to plaster ground. Continue as above until entire surface of sub-floor is completed. Thoroughly calk all pipe and conduit outlets with Balsam-Wool trimmings.

Note: If pipe or electric conduits are laid on sub-floor, apply Balsam-Wool over them. If pipe or conduits run under furring strips at right angles, notch strips to receive conduits, making notch of sufficient size to prevent compression of Balsam-Wool over conduit. If conduit runs diagonally under furring strips run a furring strip parallel to conduit on one side as shown in figure 72, taking care that these strips do not come in contact with other furring strips.

Note: In Fireproof Construction imbed beveled sleepers in concrete. Apply Balsam-Wool Floor Deadening System on furring strips running at right angles to sleepers and metal straps nailed into sleepers.

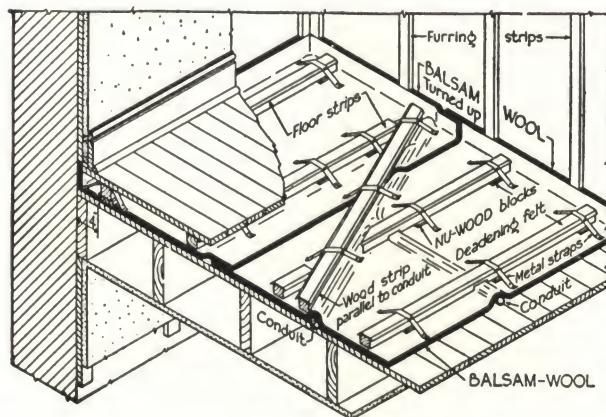


FIGURE 5

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NU-WOOD *Interior Finish*

APPLICATION INFORMATION

WHAT NU-WOOD IS AND DOES

Nu-Wood is processed wood. Clean, new wood is separated into individual fibers which are assembled under pressure to form a board of many uses, one of which is Interior Finish.

Nu-Wood Interior Finish is installed over wall and ceiling surfaces of plaster, masonry, or wood in old construction or over framing in new construction to take the place of lath and plaster. It needs no painting or decorating. Its soft shades of tan and its interesting surface texture give Nu-Wood rooms unusually decorative effects. Yet Nu-Wood does more than decorate. It insulates against heat and cold. It hushes noise. It does all these things in one operation.

Nu-Wood is made in several pre-decorated units in a variety of sizes. Any required thickness over $\frac{1}{2}$ in. (in multiples of $\frac{1}{2}$ in.) is available. Each unit is provided with edges which experience has shown to be best suited for carefully designed interior finish application.

NU-WOOD BOARD

Description—Square edge structural insulating boards with a soft neutral wood-brown color. It blends harmoniously with any scheme of decoration and furnishings. One side has a smooth screen finish—the other a unique individual texture.

Nu-Wood Board is used on walls and ceilings with moldings of Nu-Wood, wood or metal—as a center piece in a field of other Nu-Wood units—as a border.

Sizes—4 ft. wide x 4, 6, 7, 8, 9, 10, and 12 ft. long. Full $\frac{1}{2}$ in. thick. Thicknesses up to 2 in., made by laminating $\frac{1}{2}$ -in. layers.

NU-WOOD BEVEL-LAP TILE

Description—Rectangular tile units. All four edges are provided with the Bevel-Lap joint (see Figure 1). Available in a harmonizing color range varying from light tan to rich wood-brown. Ivory tile can be furnished when light reflection is an important factor.

Nu-Wood Tile is laid in various patterns and in combination with other Nu-Wood Interior Finish Units, such as Nu-Wood Board, Nu-Wood Moldings, and Nu-Wood Plank and Nu-Wood Wainscot.

Sizes—Standard sizes 8 x 8 in., 12 x 12 in., 12 x 24 in., 8 x 16 in., 16 x 16 in., 16 x 32 in., 16 x 48 in., 24 x 24 in., 24 x 48 in. Special sizes, 6 x 6 in., 6 x 12 in., 18 x 32 in., 18 x 48 in., or other dimensions, can be furnished on order.

Thickness—Full $\frac{1}{2}$ in.



FIGURE 1

NU-WOOD BEVEL-LAP PLANK

Description—Rectangular plank units. Available in Beaded Bevel (Figure 2) and in a harmonizing color range varying from light tan to rich wood-brown. Ivory Plank can be



FIGURE 2

furnished where light reflection is an important factor.

It may be used to advantage in combination with Nu-Wood Board, Nu-Wood Bevel-Lap Tile, Nu-Wood Moldings, and Nu-Wood Wainscot.

Sizes—6, 8, 10, 12, and 16 in. wide x 6, 8, 9, 10, and 12 ft. lengths.

Thickness—Full $\frac{1}{2}$ in.

NU-WOOD WAINSCOT AND CHAIR RAIL

Description—Same composition as other Nu-Wood units designed particularly for lower wall use. The surface texture is a coarse, loosely woven fabric effect with a hard finish. Side edges have a shiplap joint. (See Figure 3.) It has deep wood-brown color to harmonize with other Nu-Wood units.



FIGURE 3



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Sizes—2 ft. and 4 ft. widths x 3, 4, and 5 ft. heights. Chair Rail is 2 $\frac{3}{4}$ in. wide x 8 ft. 0 in. long with square finished top and bottom edges. Both Wainscot and Chair Rail are $\frac{1}{2}$ in. thick.

NU-WOOD ACCESSORIES

Moldings, Border Strips, Panel Strips, and Panel Blocks.

Description—These Nu-Wood accessories are accurately fabricated from Nu-Wood Board and have the regular Nu-Wood color. Exposed surfaces are smooth finish.

Accessories are designed for use in combination with Nu-Wood interior finish units.

Sizes, Thicknesses, Etc.—

Moldings— $\frac{7}{16}$ in. thick, all 8 ft. long (detailed in Figure 4).

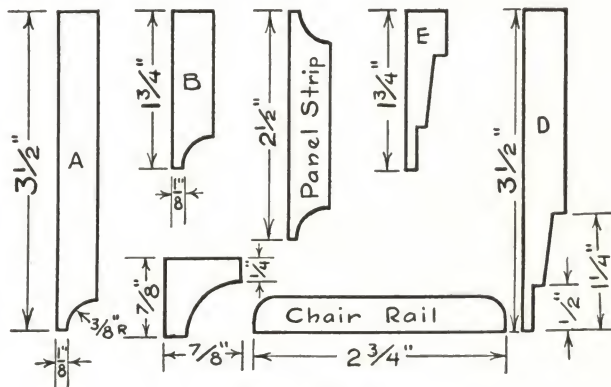


FIGURE 4

Border Strips— $\frac{1}{2}$ in. thick, 15 in. wide x 4 ft. long. Square edge on one side, square edge bevel on other side and both ends.

Panel Strips—2 $\frac{1}{2}$ in. wide x 8 ft. long with cove on both edges.

Panel Blocks—Octagonal, 5 in. wide with four of the edges coved to match Panel Strips. They are designed for use at intersection of Panel Strips.

NU-WOOD IS PRE-DECORATED AND TAILOR-MADE

Nu-Wood units, unlike some materials used on walls and ceilings, are tailor-made to fit the exact requirements of the area to be treated. Only simple steps need be followed in planning the treatment and in applying the units.

Nu-Wood units may be grooved and beveled, of course, but this type of work on the job is not necessary. However, when some extra decoration is wanted Nu-Wood units are easy to decorate with a special hand tool known as the "Bevil-Devil." A few easy border and spot beveling treatments are shown in Figure 5. It is much

less expensive to provide this extra decoration right on the job than to buy specially designed ornaments. Nu-Wood's entire plan of application keeps the carpenter in mind—making the work as easy as possible for him and assuring results which are bound to be satisfactory.

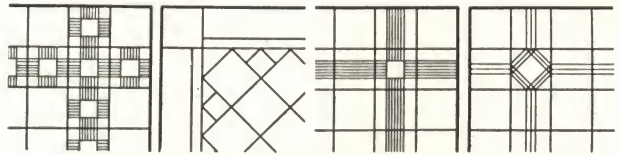


FIGURE 5

The Bevil-Devil—A standard grooving, cutting, and beveling tool in the form of a plane with which Nu-Wood Interior Finish Units may be decorated. Illustrated in Figure 6. Cuts which may be made with the Bevil-Devil are illustrated in Figure 7.

Borders—Areas on which Nu-Wood Interior Finish Units are used do not require borders. Sometimes, however, they are desired. Special



FIGURE 6

panel strips and blocks are provided to make borders (see accessories), and the "Bevil-Devil" tool may be employed in their design. Borders may be either overlaid or set into the design.

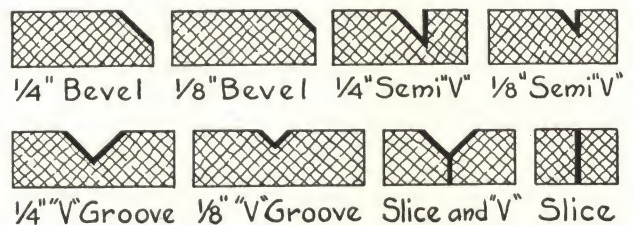


FIGURE 7

Light Outlets—It is often desirable to add a decorative touch around a light outlet on wall or ceiling. Nu-Wood units may be decorated for this purpose with the "Bevil-Devil" tool or with stencils and overlaid or set into the design. They

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may also be cut out of Nu-Wood Board in any number of shapes and sizes. (See Figure 8.)

Moldings and Corner Treatments—Nu-Wood Moldings (see Figure 4) are used singly or combined at intersection of wall and ceiling—for paneling—for wall or ceiling decorations. If preferred, wood or metal moldings may be used for the same purposes.

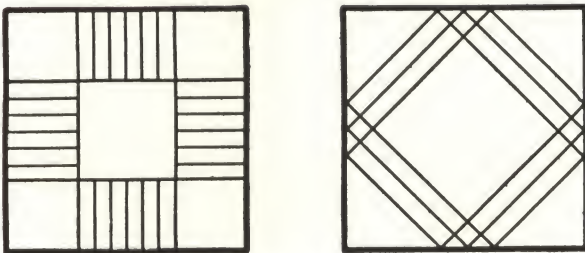


FIGURE 8

Metal moldings are especially desirable when the room is to be furnished in the modern style. They may be used to cover the joints of Nu-Wood Board in horizontal or vertical panels or to form geometric patterns on walls or ceilings. (See Figure 9.) Details of metal molds for inside and outside corners, division bars, and edge strips are shown in Figure 10. Rolled metal moldings may be obtained from Chicago Metallic Sash Company, Chicago, Illinois; Pyramid Metals Company, Chicago, Illinois; Brasco Manufacturing Company, Harvey, Illinois. Snap-on metal moldings may be obtained from Wooster Products Company, Wooster, Ohio, and others.

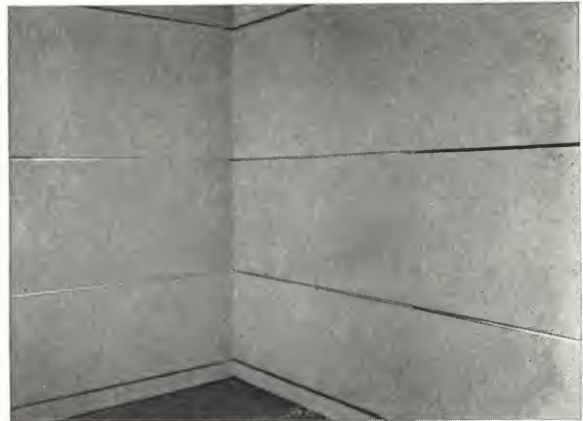


FIGURE 9

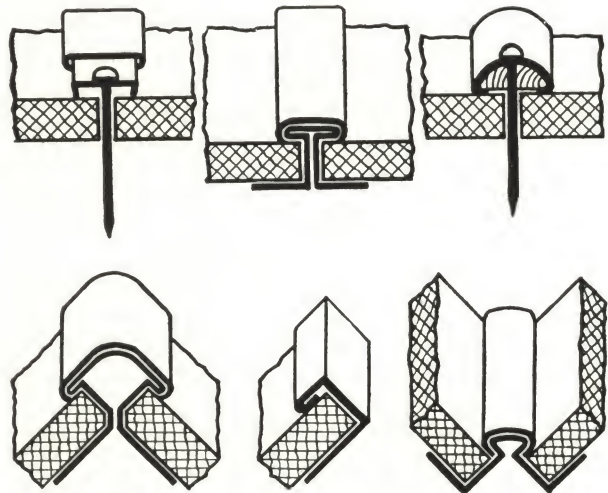
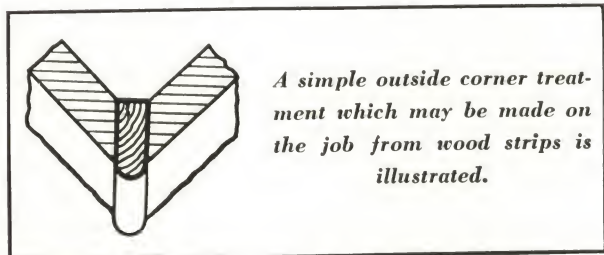


FIGURE 10



A simple outside corner treatment which may be made on the job from wood strips is illustrated.



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RIGHT AND LEFT HAND BEVEL-LAP TILE

Two edges of Nu-Wood Bevel-Lap Tile are tongued and two edges are grooved. When tile is held with long edge vertical—a *right hand* bevel tile has the tongue on the top and *right* edge. In the same position a *left hand* bevel tile has a tongue on the top and *left* edge. A square tile may be used either as a right or a left hand unit.

Nu-Wood Bevel-Lap Plank has one edge tongued and the other grooved. Ends are square cut.

DIRECTIONS FOR APPLYING NU-WOOD INTERIOR FINISH WITH ADHESIVE

A special adhesive, known as "Adhestik," is available for applying Nu-Wood products. All Nu-Wood dealers can supply "Adhestik."



When Nu-Wood units are applied with Adhestik—use "spots" about this size.

OVER PLASTER

A. Preparation of Surface.

1. *Old construction.* The surface should be clean, free from loose dirt, grit or other impurities. Whitewash, calimine, peeling paint or wall paper should be completely removed to insure proper adhesion between Nu-Wood and the base. Examine plaster carefully. If loose or chalky spots are found, patch as required. If surface is greasy, it must be washed clean before applying Nu-Wood with "Adhestik." Plaster surfaces of rough sand finish should be scraped to remove loose particles. All low spots and other irregularities should be checked with a straight

edge and these indicated by some special mark or symbol.

"Adhestik" COVERAGE CHART—TABLE I

Tile Size	No. Spots Per Tile	Sq. Ft. Per Gal.	Gal. Per 1000 Sq. Ft.
6 x 12	4	38	24
12 x 12	4	77	13
12 x 24	6	77	13
8 x 16	4	69	15
16 x 16	4	100	10
16 x 32	6	134	8
16 x 48	8	154	7
24 x 24	9	103	10
24 x 48	12	154	7

2. *New construction.* When new plaster forms the base for Nu-Wood, it is often feasible to omit the putty or finish coat. In this case, the brown coat must be troweled to a uniform, smooth surface and applied to give a total minimum plaster thickness of $\frac{1}{2}$ in. Ample time must be given for the plaster to dry and reach its full strength before the Nu-Wood is applied. Gypsum plaster is recommended.

B. Application.

1. *Tile and Plank.* Nu-Wood Bevel-Lap Tile and Plank should be cemented to plaster with "Adhestik" applied around all edges in spots of sufficient size and quantity to insure proper adhesion. The size and number of spots of "Adhestik" will vary with the condition of plaster surface and size of tile. Large tile, such as 24 in. x 24 in., require spots of "Adhestik" at the center as well as around the edges. Pressure should be applied over the spots of "Adhestik" when sliding the tile into position. To form a good bond, the tile and plank should be worked into position with weaving or turning motion, starting one to three inches from final position. On ceiling applications where large tile are employed, use brads driven through the "Adhestik" spots to assist in holding the tile firmly in place until the "Adhestik" sets. Where irregularities in the plaster surface have been encountered and marked, apply adhesive in the proper thickness to insure a true surface.

2. *Board and Wainscot.* Nu-Wood Board and Wainscot should be fastened to plastered surfaces with both "Adhestik" and nails. "Adhestik" should be applied in spots about $1\frac{1}{2}$ in. in diameter and about $\frac{1}{4}$ in. thick. These spots should be spaced about six inches apart over the entire area of each piece. The board or wainscot should then be worked into position with a sliding, weaving motion, starting one to three inches from the final location, pressing firmly over the spots of "Adhestik." Whenever low spots are

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encountered in the plaster, enough "Adhestik" should be used to shim out the Nu-Wood. The nails should be spaced every four to six inches around the edges and every 10 to 12 inches over the remaining area. Begin nailing at the center and work toward edges. Use No. 17 gauge brads of proper length to secure anchorage, driven at an angle to the surface of approximately 60°. Nails should be countersunk to be made practically invisible.

OVER MASONRY BACKING

A. Application.

1. *Tile and Plank.* If surface is true and dry, apply Nu-Wood Tile or Plank directly to masonry with "Adhestik," as specified in "Over Plaster."

2. *Board and Wainscot.* Nu-Wood Board and Wainscot should not be applied directly to masonry surface unless they can be glued and nailed. Where surface permits both, follow directions as specified in "Over Plaster."

OVER OTHER BACKINGS

1. Nu-Wood Tile and Plank may be applied to plaster-board, insulating board, plywood, or lumber. In each case the use of "Adhestik" or a combination of "Adhestik" and brads is recommended. Follow the directions outlined in "Over Wood Framing."

2. Nu-Wood Board and Wainscot may be applied to plaster-board, insulating board, plywood, or lumber. In each case, both "Adhestik" and nails should be used. See "Over Plaster."

NAILING RECOMMENDATIONS

Kind of Nail: Galvanized wire brads are recommended. When they are not available, bright wire brads may be used.

TABLE II

Tile Size	Location of Brad	No. of Brads Per Tile	Approx. Lbs. of Brads Per 1000 Sq. Ft. of Tile
6 x 12	1—each corner	4	6.6
12 x 12	1—each corner	4	3.3
12 x 24	4—each long edge	8	3.3
8 x 8	1—each corner	4	7.5
8 x 16	3—each long edge	6	3.7
16 x 16	3—on each side	9	4.2
	1—in center		
16 x 32	5—each long side	15	3.5
	5—on center line		
16 x 48	7—each long side	21	3.3
	7—on center line		
24 x 24	4—on two sides	12	2.5
	4—on center line		
24 x 48	7—each long side	21	2.2
	7—on center line		

Quantity: The quantity of brads required for use with each size unit is shown in Table II. As a general rule, board, plank and wainscot require about 6 brads per square foot, or 4 to 5 pounds of 1¼-in. brads per thousand square feet. See Table III for gauge, length and spacing of nails.

TABLE III

½" Nu-Wood Finish Material	Gauge of Nail	Length of Nail	Spacing Directions
Board	No. 17	1¼"	6"
Tile	No. 17	1¼"	6"-10"
Plank	No. 17	1¼"	6"
Wainscot	No. 17	1¼"	6"
Moldings	No. 15	1¾"	6"

DIRECTIONS FOR APPLYING NU-WOOD INTERIOR FINISH WITH NAILS—OVER WOOD STRIPS

A. Where to install wood strips.

1. Wood furring strips should be installed over plaster surfaces in poor condition. Place strips at right angles to the framing members already installed. Wood furring strips should be used over concrete blocks, monolithic concrete, hollow tile, cinder concrete blocks, or other masonry where there is danger of moisture penetrating the wall; or where the masonry surface is uneven and, therefore, not suitable as a base. Over a masonry surface, wood nailing grounds placed not more than 36 in. on center should be inserted in the masonry joints or in the concrete surface at the time of construction. If grounds are not provided furring strips may be applied direct to hollow tile with toggle bolts and to solid masonry with plugs or expansion bolts.

B. Application.

1. *Tile and Plank.* Install wood nailing strips spaced 8 in. or 12 in. on center in accordance with the requirements of the design. Use straight lumber of uniform thickness. Shim strips to a true level plane. See "Nailing Recommendations." Nails should be driven through tile or plank at an angle to the surface of approximately 60°. Reverse the angle of half the nails. Nail through face of tile or plank—never through bead or bevel. Bury nail heads below surface with properly gauged hammer blow or with nail set.

2. *Board and Wainscot.* Install wood nailing strips spaced 12 in. or 16 in. o.c. If these strips are applied vertically, insert cross furring back of chair rail and baseboard and at intervals between the chair rail and baseboard not over 24 in. on center. If applied horizontally,



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insert cross furring at joints and at intervals not over 24 in. o.c. Nails shall be driven at an angle to the surface of approximately 60°. Reverse the angle of half the nails. Nail through face of board or wainscot—never through bead or bevel. Bury nail heads below surface with properly gauged hammer blow or nail set.

OVER WOOD FRAMING

1. *Tile and Plank.* In new construction apply Nu-Wood Board, plasterboard, plywood, Tuffwood, Semi-tuffwood, or lumber as backing before applying tile or plank. When lumber, plywood, plasterboard, or Semi-tuffwood backing is used, tile or plank may be nailed or glued. With Nu-Wood or Tuffwood backing "Adhestik" is recommended. See directions for applying with "Adhestik," "Over Plaster," directions for applying with nails, "Over Wood Strips."

2. *Board and Wainscot.* Nu-Wood Board and Wainscot may be nailed directly to framing

members spaced 12 in. or 16 in. on center. Insert headers back of chair rail and baseboard and at intervals between the chair rail and baseboard not over 24 in. on center. Follow directions in "Over Wood Strips."

HOW NU-WOOD IS CLEANED

Remove dust from Nu-Wood walls and ceilings with a vacuum cleaner—grime and dirt with a rubber cleaning sponge (used dry) or wall paper cleaner.

HOW NU-WOOD MAY BE DECORATED

Nu-Wood is especially sized in manufacture to provide a suitable painting surface for water paints. When the entire surface is to be covered with oil paint, however, a suitable primer (which is made by most paint companies) should be applied first. Check your local paint dealer for correct primer. Stencils may be obtained from paint stores or from the "Ladies' Home Journal," Philadelphia, Pennsylvania.

TYPICAL NU-WOOD INSTALLATIONS



IN THE HOME



IN THE SCHOOL



IN THE CHURCH



IN THE THEATRE

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NU-WOOD *Insulating Lath*

APPLICATION INFORMATION

DESCRIPTION

Nu-Wood Insulating Lath is a rigid wood fiber plaster base with a high degree of insulating efficiency.

JOINT

Nu-Wood Lath has a simple V joint which makes fitting of sheets in application easy, reduces joint damages and assures a continuous, unbroken plastering surface.

BOND WITH PLASTER

Nu-Wood Lath offers a natural bond with plaster several times greater than that of wood lath. The strong wood fibers grip the plaster to enable it to withstand a pull of more than 1500 lbs. to the square foot. Loose plaster, lath marks, and plaster cracks are almost entirely eliminated.

INSULATION EFFICIENCY

Nu-Wood Lath has a conductivity rating of .324 B.t.u. per hour, per square foot, per degree difference in surface temperature according to Prof. J. C. Peebles of Armour Institute of Technology.

SIZES OF NU-WOOD LATH

Nu-Wood Lath is furnished 16 in. wide and 48 in. long—convenient, easy-to-handle units which are packed in bundles to simplify delivery.

Nu-Wood Lath is available 1/2 in. thick, 1 in. thick or greater thicknesses in multiples of 1/2 in. as desired. There are 12 pieces of 1/2 in. to the bundle—64 sq. ft. There are 6 pieces of 1 in. to the bundle—32 sq. ft.

APPLICATION OF NU-WOOD INSULATING LATH

General—Do not moisten lath units before application. Apply lath at right angles to the framing (or furring) members with rough side exposed and V joint "tongue" up. End joints shall center over framing members. Stagger end joints in successive courses. Stagger end joints at juncture of wall and ceiling.

Where cutting is necessary, the lath shall be

scored with the point of the lather's hatchet and broken along the scored line.

Where piecing out is necessary, use only strips of Nu-Wood Lath so cut that the V joint between units shall span between supports.

Accurately cut and fit lath around electrical outlet boxes, piping, etc.

Spacing—Space ends of lath units 3/16 in. apart. Bring V joint edges together in moderate contact.

Nails—Use No. 13 gauge, 1 1/8 in. long, blued special plasterboard nails with 5/16 in. heads for 1/2 in. thick Nu-Wood Lath.

Use No. 13 gauge, 1 3/4 in. long, blues special plasterboard nails with 5/16 in. head for 1 in. thick Nu-Wood Lath.

Nailing—First nail units to intermediate supports, then nail ends. Space nails approximately 4 in. apart and not closer than 3/8 in. to edges.

Angle Reinforcement—All corners shall be reinforced with standard metal corner beads. All re-entrant angles shall be reinforced with standard expanded metal angle lath strips (cornerite). Reinforcement shall be securely stapled over the Nu-Wood Lath.

RELATED PROVISIONS

Construction framing shall be 12 or 16 in. on centers. Follow the standard recommendations of the Building Code Committee of the U. S. Department of Commerce and the National Lumber Manufacturers Association for all wood framing.

Furring—Fur all exterior masonry walls to receive Nu-Wood Lath with 1 x 2 furring strips set 12 or 16 in. o.c. accurately shimmed to a true, level plane. Secure substantially to masonry.

Grounds—Furnish and erect, substantially secured to framing members through the Nu-Wood Lath, full 1/2 in. wood grounds for all interior wood trim.

Where 1 in. thick Nu-Wood Lath units are used, add the necessary trim grounds on all door and window frames to compensate for this thickness plus a full 1/2 in. of plaster.

Plastering—Caution—Do not wet Nu-Wood Lath before applying plaster.



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Inspection—Inspect nailing and notify lather of any portions of Nu-Wood Lath not adequately secured in accordance with "Application" as outlined above. See that all corners and angles are reinforced with metal corner beads accurately set to line with grounds and that all re-entrant angles are reinforced with expanded metal angle strips.

Plaster—Use standard gypsum cement plaster or gypsum wood fiber plaster for scratch and brown coats mixed accurately in accordance with the manufacturer's specifications. Both scratch and brown coat shall be mixed to a wet consistency to allow for application with light trowel pressure and to facilitate darbying. Use any standard plaster finish over the brown coat, such as gypsum, lime, or lime gauged with gypsum mixed in accordance with the manufacturer's specifications. *Note: Lime plaster or lime gauged with gypsum should not be used for scratch and brown coats.*

APPLICATION OF PLASTER

Apply in three (3) coats to full $\frac{1}{2}$ in. grounds in accordance with the plaster manufacturer's specification. Surfaces shall be rodged to a true plane. All corners and angles shall be plumb and true. Wherever necessary, and particularly on ceilings, provide plaster screeds to insure an

even, uniform full $\frac{1}{2}$ in. plaster thickness. *Note: The maintenance of a uniform full $\frac{1}{2}$ in. thickness of plaster cannot be too strongly stressed. Most plaster defects where a fibrous or board plaster base is used may be attributed to a weak, thin plaster coat, inadequate to withstand the normal building strains of shrinkage, settlement, and vibration.*

In applying the scratch coat of plaster, this shall be carefully pressed into all joints.

If the brown coat becomes stiff and sets during darbying, wet down the surface to allow for darbying without undue pressure against the plaster surface.

Darby strokes shall be in the direction of framing members with the darby spanning two studs or joists.

Ventilation—Provide adequate ventilation for the proper drying of the plaster. *Note: Due to the moisture-proof characteristics of Nu-Wood Lath, all plaster moisture must be carried off by the air in contact with the exposed plaster surface.*

Heat—Provide adequate heat to prevent injury by frost.

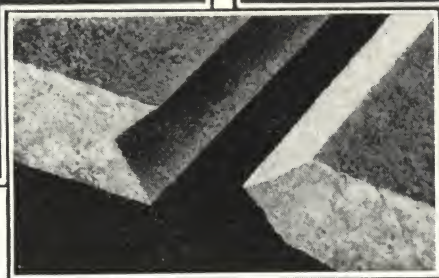
Electrical Outlets—Where 1 in. thick Nu-Wood Lath units are used, set electrical outlet boxes to accommodate a full $1\frac{1}{2}$ in. thickness from face of stud or joist to face of plaster.



APPLICATION OF NU-WOOD LATH



APPLICATION OF PLASTER OVER
NU-WOOD LATH



THE NU-WOOD LATH JOINT

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NU-WOOD *Roof Insulation*

APPLICATION INFORMATION

GENERAL—Roof insulation to be effective must be kept dry before, during, and after installation. To facilitate this axiom of good construction and enable the roofing contractor to do better and more rapid work, the inclusion, in the specifications of Vapor Cut-offs, Seal Courses, and Water Cut-offs is strongly recommended. These provisions are approved for standard practice by the United Roofing Contractor's Association.

VAPOR CUT-OFF—is used over wood roof decks where high humidities are maintained within the building. It consists of a multiple layer of roofing felts or a course of heavy prepared roofing laid directly over the wood deck. Insulation is laid over this waterproof course and covered with the waterproof built-up roofing.

SEAL COURSE—is used over concrete and similar roof decks to act as a temporary waterproof covering. This is applied as soon as the roof is completed and obviates any necessity for installing the insulation and finished roofing during inclement weather or before other trades have left the roof. It provides adequate protection for the completion, without delay, of work within the building, such as plastering and interior finish.

WATER CUT-OFFS—divide the insulation into isolated areas to prevent spread of leaks should the finished roofing be damaged. They provide against damage by sudden showers and form logical damage-proof stopping points during the roofing installation over-night and week-ends.

Location of water cut-offs should be indicated on the roof plan with faint lines to assist roofing contractor and to serve as a permanent record.

WOOD NAILING GROUNDS—Roof Insulation is not a nailing base. Provide under "carpentry work" for the installation of wood grounds to form a permanent, rigid nailing base for all sheet metal work. These grounds should be the full thickness of the insulation and should be at least 1 in. wider than the apron of the flashing.

NUMBER OF INSULATION LAYERS—For the best results, the insulation should be laid in two (2) layers, the second breaking joints with the first.

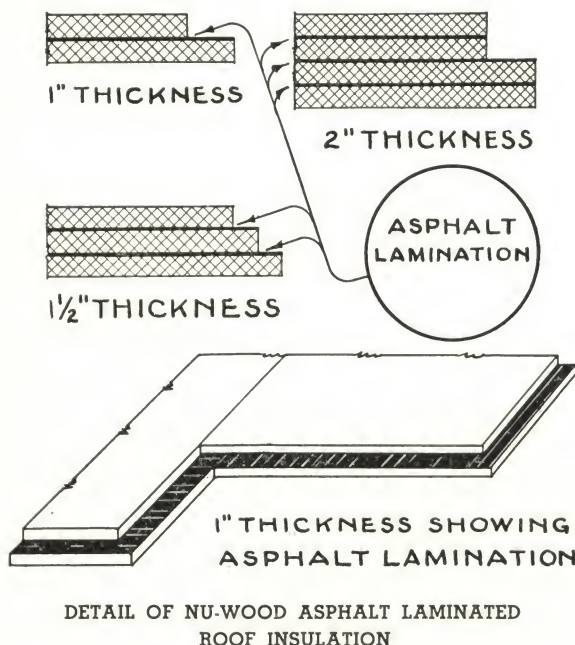
FELTS AND BITUMENS—Where coal tar pitch is used, all felts should be impregnated with the same material. Where asphalt is used, use asphalt impregnated felts.

1. Application Over Wood Roof Decks Under Built-up Roofing

PREPARATION OF DECK

Wood Nailing Grounds—To provide adequate attachment for miscellaneous sheet metal flashings, such as leader outlets, soil and vent flashings, metal base flashings, eave aprons, gravel stops, etc.

Provide wood nailing grounds to form a nailing base under all sheet metal flashing aprons and flanges of every nature. Grounds shall be the full thickness of the Nu-Wood Roof Insulation at least 1 in. wider than the apron and rigidly secured to the roof construction with nails, lag bolts, expansion bolts, or other means of attachment as best adapted. Check all nailing grounds and correct defects before laying Nu-Wood Roof Insulation and roofing.



Roof Deck—Broom clean surface of roof deck. Make free from dirt and loose material; get thoroughly dry. Nail all loose or springy boards before insulation is laid.

Building Paper—If Nu-Wood Roof Insulation is laid in one (1) layer only cover the entire roof area with two (2) plies (lapped half) rosin sized building paper or 6 lb. coated felt. Nail sufficiently to hold in place until the Nu-Wood Roof Insulation is laid over it.



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APPLICATION OF NU-WOOD ROOF INSULATION

Only as much Nu-Wood Roof Insulation shall be laid over the roof area as can be covered by the finished roofing in any one day.

Lay Nu-Wood Roof Insulation in one or two layers over the entire roof area. Adjoining edges of the boards shall be brought to a moderate contact but shall not be forced into place. Where the roof meets vertical surfaces, such as parapets, penthouses, etc., boards shall be cut in a neat, workmanlike manner to insure proper joining without forcing. Boards shall be laid in parallel courses with end joints in each course breaking with those of adjoining courses.

Two Layer Insulation—Where Nu-Wood Roof Insulation is laid in two (2) layers, the boards of the second layer shall be laid parallel with those of the first layer, and the joints of the second layer shall break joints with those of the first layer.

Nailing of two (2) layer Nu-Wood Roof Insulation shall be through the second layer or top layer only. (Do not nail the first layer.)

Water Cut-offs—*Note: Advocated to prevent the spread of water beyond predetermined isolated areas in the event of leaks due to damage to the roofing or defective flashings, parapet walls, copings, etc.*

Nu-Wood Roof Insulation, whether laid in one (1) or two (2) layers, shall be cut to the line designated for the water cut-off.

Water cut-offs shall consist of strips of coal tar pitch or asphalt saturated roofing felt 8 to 10 in. wide stuck in bitumen to the roof, carried over the edge of the Nu-Wood Roof Insulation, and turned over and stuck in bitumen to the top surface of the insulation. Water cut-offs shall be located approximately 24 in. from and parallel to all vertical walls, such as parapets, penthouses, skylight curbs, etc., and around all leader heads, soil pipes, vents, ventilators, etc. The body or field of the roof shall be divided into rectangular areas approximately 30 ft. on a side, each area isolated with a water cut-off. Insert a water cut-off surrounding each day's work if the stop is not made at the designated water cut-off. At least one (1) ply of the finished roofing shall be mopped to the water cut-off each night.

Nails—Nails shall be of sufficient length to pass through the insulation and penetrate the wood roof deck at least 1 in.

Nailing—Space nails 12 in. apart o.c. Each board shall be secured in place by nailing along each edge and with nails staggered along the longitudinal center line.

APPLICATION OF ROOFING

The exposed surface of the Nu-Wood Roof Insulation shall receive a poured coat of hot coal tar pitch or asphalt squeegeed or broomed to about $\frac{1}{16}$ in. thickness to receive the roofing felts. *Note: The above in lieu of the ordinary mopping is advocated. Roofing shall be applied in accordance with the manufacturer's specifications.*

PREPARATION OF DECK

All preparation shall be as in "Application Over Wood Roof Decks under Built-up Roofing."

2. Application Over Wood Roof Decks Under Built-up Roofing Where High Humidities are Maintained

Vapor Cut-off—Over the wood roof deck lay two (2) plies (lapped half) of 14 lb. coal tar pitch saturated felt or 34 lb. asphalt prepared roofing having one side coated. (Lay coated side down.) Nail the back edge of each sheet with tin-capped, galvanized, barbed roofing nails spaced 12 in. o.c. All laps shall be mopped back 12 in. with hot coal tar pitch or asphalt. Do not mop over this membrane until just prior to the laying of Nu-Wood Roof Insulation.

APPLICATION OF NU-WOOD ROOF INSULATION

Mopping the Vapor Cut-off—Mop the exposed vapor cut-off felt liberally with hot coal tar pitch or asphalt. Only sufficient area to provide complete embedment of each Nu-Wood Roof Insulation unit shall be mopped at a time.

Follow application instructions as outlined under "Application Over Wood Roof Decks Under Built-up Roofs."

Two-Layer Insulation—Where Nu-Wood Roof Insulation is laid in two (2) layers, the units of the second layer shall be laid parallel with those of the first layer, and the joints of the second layer shall break joints with those of the first layer.

Mop the exposed surface of the first layer liberally (at least 25 lbs. per square) with hot coal tar pitch or asphalt. Only sufficient area to provide complete embedment of each insulation unit shall be mopped at a time.

Embed each unit of the second layer firmly in the bituminous mopping.

Water Cut-offs—Follow "Water Cut-offs" as outlined under "Application Over Wood Roof Decks Under Built-up Roofs."

APPLICATION OF ROOFING

Follow application instructions as outlined under "Application of Roofing" under "Application Over Wood Roof Decks Under Built-up Roofing."

3. Application Over Roof Decks of Monolithic Concrete or Gypsum or Roof Decks of Unit Tile Construction Under Built-up Roofing or Promenade Tile

PREPARATION OF SURFACE

Follow instructions under this title Application I for Wood Nailing grounds EXCEPT when finished roofing is to be Promenade Tile.

ROOF DECK

General—The surface of the roof deck shall be reasonably smooth without depressions, broomed clean, free from dirt and loose material and thoroughly dry.

Unit Tile Construction—The joints of all tiles—cement, gypsum, or similar—shall be properly pointed up.

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Under Promenade Tile Roofing—Note: Slope for proper drainage may be provided in either of the two following methods: The first is preferable.

The roof slab shall be formed flat and the drainage slopes built up over the Nu-Wood Roof Insulation with the finished promenade tile roofing and its mortar bed . . . OR . . . the roof slab shall be formed graded to all outlets with cement mortar fill before the seal course and the Nu-Wood Roof Insulation is laid.

SEAL COURSE—is recommended on all insulated roof decks, other than wood, to afford protection from rain, snow, and ice so that the insulation and finished roofing may be applied under favorable weather conditions and only after all other trades have left the roof.

Priming the Deck—Prime the deck with asphalt roofing primer. Note: Include priming if asphalt mopping and asphalt felt are used for seal course. If coal tar pitch and felt are used, no primer is necessary.

Mopping the Deck—Mop the entire roof area or spot or strip mop the individual tiles or units with a coat of hot coal tar pitch or asphalt. Note: If the deck is monolithic construction (concrete, poured gypsum), the mopping shall be continuous. If the deck is of precast units (book tile, precast gypsum, concrete), spot or strip mop the individual units.

Laying the Seal Course—Over the mopping while hot, lay one (1) layer of 14 lb. coal tar pitch or asphalt saturated roofing felt with 2 in. laps. Turn the felt up 4 in. against all walls and vertical surfaces and stick with pitch and provide temporary thimbles at all leader heads, etc., so that the roof will be reasonably watertight against rain and melting snow. Do not mop over this membrane until just prior to the laying of Nu-Wood Roof Insulation.

APPLICATION OF NU-WOOD ROOF INSULATION

Mopping the Seal Course—Mop the exposed seal course felt liberally with hot coal tar pitch or asphalt. Only sufficient area to provide complete embedment of each Nu-Wood Roof Insulation unit shall be mopped at a time.

Follow "Application of Nu-Wood Roof Insulation" under "Over Wood Roof Decks Under Built-up Roofing."

Two-Layer Insulation—Where Nu-Wood Roof Insulation is laid in two (2) layers, the boards of the second layer shall be laid parallel with those of the first layer, and the joints of the second layer shall break joints with those of the first layer.

Mop the exposed surface of the first layer liberally (at least 25 lbs. per square) with hot coal tar pitch or asphalt. Only sufficient area to provide complete embedment of each Nu-Wood Roof Insulation unit shall be mopped at a time.

Embed each unit of the second layer firmly in the bituminous mopping.

Water Cut-offs—Follow application of Water Cut-offs under Application I.

APPLICATION OF ROOFING

Follow application instructions as outlined under "Application of Roofing" under "Over Wood Roof Decks Under Built-up Roofing."

PREPARATION OF SURFACE

Follow instructions under this title Application I for Wood Nailing Grounds.

Roof Deck—The steel deck shall be securely anchored to the roof purlins and all joints shall be made rigid.

4. Application Over Steel Roof Decks Under Built-up Roofing

Seal Course—Note: Include this seal course if the rooms beneath the roof carry high manufactured or incidental humidities. Do not use coal tar pitch mopping on steel decks.

Laying the Seal Course—Mop the entire roof area with a coat of hot asphalt. Over the mopping, while hot, lay one (1) layer of 14 lb. asphalt saturated roofing felt with 2 in. laps. Turn the felt up 4 in. against all walls and vertical surfaces and stick with pitch and provide temporary thimbles at all leader heads, etc., to the end that the roof will be reasonably watertight against rain and melting snow. Do not mop over this membrane until just prior to the laying of Nu-Wood Roof Insulation.

APPLICATION OF NU-WOOD ROOF INSULATION

Mopping the Seal Course or the Steel Deck—Mop the exposed seal course felt or the steel deck with hot asphalt. Only sufficient area to provide complete embedment of each Nu-Wood Roof Insulation unit shall be mopped at a time.

Follow "Application of Nu-Wood Roof Insulation" under "Over Wood Roof Decks Under Built-up Roofing."

Two-Layer Insulation—Where Nu-Wood Roof Insulation is laid in two (2) layers, the boards of the second layer shall be laid parallel with those of the first layer, and the joints of the second layer shall break joints with those of the first layer.

Mop the exposed surface of the first layer liberally (at least 25 lbs. per square) with hot asphalt. Only sufficient area to provide complete embedment of each Nu-Wood Roof Insulation unit shall be mopped at a time.

Embed each unit of the second layer firmly in the bituminous mopping.

For Steel Decks—In addition to the mopping, each board shall be secured to the steel deck with three (3) bolts along the top.

Water Cut-offs—Follow application of Water Cut-offs under Application I.

APPLICATION OF ROOFING

Follow application instructions as outlined under "Application of Roofing" under "Over Wood Roof Decks Under Built-up Roofing."

SIZES—THICKNESSES

The size of Nu-Wood Roof Insulation is 24 x 48 in. or 23 x 47 in. It is available ½ in. and 1 in. thick and will be furnished in any other practical thickness desired. For thickness of 1 in. or greater, multiples of ½ in. Nu-Wood Roof Insulation are either stapled or asphalt-laminated, with offset or flush edges as desired, to required thickness.

Asphalt-laminated Nu-Wood Roof Insulation provides to the job all the advantages occurring when layers of insulation are thoroughly mopped as they are applied—yet it is applied in one operation, reducing labor costs and insuring complete moisture-resistance.

There are ten sheets of ½ in. Nu-Wood Roof Insulation to the bundle . . . five sheets of 1 in.

Nu-Wood Roof Insulation is also available in wrapped and sealed units—24 x 48 in. or 23 x 47 in. in thickness of 1 in., 1½ in., 2 in., or additional thicknesses in multiples of ½ in. as desired. This wrapped and sealed Nu-Wood Roof Insulation is moisture, water and vapor-proof.

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